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UNITED STATES PATENT AND TRADEMARK OFFICE

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EXAMINER
DAILEY, THOMAS J

ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

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<tr><td rowspan="2">Office Action Summary</td><td>Application No.</td><td>Applicant(s)</td><td></td></tr>
<tr><td>10/617,001</td><td>ANDERSON ET AL.</td><td></td></tr>
<tr><td>Examiner</td><td>Art Unit</td><td></td></tr>
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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 April 2007*.

2a)☒ This action is **FINAL.**   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-38* is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-12,17-24,26,27 and 29-37* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☒ All   b)☐ Some * c)☐ None of:

      1.☒ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
   Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-38 are pending in this application.

2. Claims 13-16, 25, 28, and 38 were canceled by the amendment filed on April 26, 2007.

3. Claims 1-12, 17-24, 26-27, and 29-37 are being considered for evaluation in this office action.

Response to Arguments

4. The applicant argued with respect to claim 3's 35 U.S.C. 112, second paragraph rejection that the meaning of the term "approximately" is well known to persons having ordinary skill in the art as well as lay persons.

5. The examiner disagrees. The applicant is reminded, as provided in MPEP 2173.05(b):

When a term of degree is presented in a claim, first a determination is to be made as to whether the specification provides some standard for measuring that degree. If it does not, a determination is made as to whether one of ordinary skill in the art, in view of the prior art and the status of the art, would be nevertheless reasonably apprised of the scope of the invention. *Even if the specification uses the same term of degree as in the claim, a rejection may be proper if the scope of the term is not understood when read in light of the specification.*

The term "approximately", given in the context of claim 3, "transmitting portions of the graphical data to such that **no more than approximately 2 kilobits** of graphical data is transmitted per second" (claim 3 lines 2-3, emphasis added) and contrasted with its usage in the specification, "Accordingly, with

reference to block 308, the graphical data is transmitted at a controlled rate

(under the control of the transmission control manager 214) that **does not**

exceed a predetermined maximum data transfer rate. By way of example, the

maximum data transfer rate is set to approximately 2 kilobits per second,"

(page 8, lines 19-23, emphasis added) renders the claim indefinite. The

specification clearly states that the controlled rate does not exceed a maximum

data transfer rate, and gives that maximum transfer rate an approximate value.

However, the claim reads as transmitting no more than approximately 2 kilobits;

transmitting at approximately 2 kilobits may very well exceed 2 kilobits and

therefore no "predetermined maximum data transfer rate" not to be exceeded

exists.

6. The applicant argues with respect to claims 1, 6, 24, 26, and 27 that Laube (US

Pat. 4,653,086) does not teach "transmitting portions" of graphical data "at a

controlled rate that does not exceed a predetermined maximum data transfer rate

at which a bandwidth of the communication line would be exceeded."

7. The examiner disagrees. As the applicant points out, Laube discloses

transmitting graphical information and voice data via a frequency multiplexer

(column 5, lines 45-52). Transmission using frequency division multiplexing

inherently is done at a controlled rate with a predetermined maximum data

transfer rate, i.e. the bandwidths of the frequency divisions. Naturally it follows

that if both graphical information and voice data are transmitted using frequency

division multiplexing, the transmission of the graphical data alone can not exceed

that same "predetermined maximum data transfer rate at which a bandwidth of

the communication line would be exceeded" associated with frequency division

multiplexing.

8. Applicant's arguments with respect to the claim amended claim 17 have been

considered but are moot in view of the new ground(s) of rejection.

9. The applicant amended claim 29 to include an *"independent* sketchpad device"

and "an input device that is configured to receive voice data *from a separate*

telephone." The applicant argues Laube teaches neither an independent

sketchpad device nor that it receives voice data from a separate telephone.

10. The examiner disagrees; Laube teaches an independent sketchpad device (Fig

1) that receives voice data from a separate telephone (the device will receive

voice data from a separate phone that it is in communication with, i.e. the other

end of a two way conversation).

Claim Rejections - 35 USC § 112

11. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly
claiming the subject matter which the applicant regards as his invention.

12. Claim 3 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite

for failing to particularly point out and distinctly claim the subject matter which

applicant regards as the invention.

13. The term "approximately " in claim 3 is a relative term which renders the claim

indefinite. See the above response to arguments for further information with

regards this claim. The term "approximately" is not defined by the claim, the

specification does not provide a standard for ascertaining the requisite degree,

and one of ordinary skill in the art would not be reasonably apprised of the scope

of the invention. The claim will be interpreted as keeping bandwidth consumption

below a certain point.

Claim Rejections - 35 USC § 102

14. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public
use or on sale in this country, more than one year prior to the date of application for patent in the United
States.

15. Claims 1-12, 21-24, 26-27, and 29-36 are rejected under 35 U.S.C. 102(b) as

being anticipated by Laube (US Pat. No. 4,653,086).

16. As to claim 1, Laube discloses a method for transmitting graphical data via a

communication line (Abstract), comprising:

    generating graphical data representative of a user input (column 6, lines 64-

66);

    buffering the graphical data in memory (column 6, line 66-column 7, line 1);

and

    transmitting portions of the graphical data over the communication line to a

remote device (column 7, lines 1-10 and column 5, lines 45-47) at a controlled

rate that does not exceed a predetermined maximum data transfer rate at which

a bandwidth of the communication line would be exceeded (column 5, lines 47-

52, transmission using frequency division multiplexing inherently is done at a

controlled rate with a predetermined maximum data transfer rate, i.e. the

bandwidths of the frequency divisions).

17. As to claim 6, Laube a method for transmitting graphical data via a

communication line, comprising:

    generating graphical data representative of a user input (column 6, lines 64-

66);

    identifying discrete data points of the generated graphical data (column 6, line

66-column 7, line 1, extracted coordinate values read on "discrete data points");

and

transmitting only the identified discrete data points over the communication

line to a remote device (column 7, lines 1-10 and column 5, lines 45-47) such

less than all of the generated graphical data is transmitted so as to not exceed a

bandwidth of the communication line (column 5, lines 47-52, transmission using

frequency division multiplexing inherently is done at a controlled rate with a

predetermined maximum data transfer rate, i.e. the bandwidths of the frequency

divisions).

18. As to claim 24, Laube a system for sharing graphical data via a communication

line (Abstract), comprising:

means for receiving voice data (column 1, lines 60-63);

means for generating graphical data representative of a user input entered

into a touch-sensitive display (column 6, lines 64-66); and

means for simultaneously transmitting the voice data and information

representative of the generated graphical data via the communication line such

that a bandwidth of the communication line is not exceeded (column 5, lines 45-

53, transmission using frequency division multiplexing inherently is done at a

controlled rate with a predetermined maximum data transfer rate, i.e. the

bandwidths of the frequency divisions), wherein the means for transmitting

comprise means for buffering the graphical data and means for transmitting

portions of the graphical data over the communication line at a controlled rate

that does not excess a predetermined maximum data transfer rate (column 5,

lines 45-53).

19. As to claim 26, it is rejected by the same rationale set forth in claim 24's

rejection.

20. As to claim 27, it is rejected by the same rationale set forth in claims 6 and 24's

rejections.

21. As to claim 29, Laube discloses a independent sketchpad device (Fig. 1),

comprising:

a processing device (Fig. 2, label 76);

an input device that is configured to receive voice data from a separate

telephone (Fig. 2, label 90 and column 5, lines 45-53, the device will receive

voice data from a separate phone that it is in communication with, i.e. the other

end of a two way conversation);

a user interface with which a user can input information (Fig. 2, label 30);

an output device that is configured to transmit data (Fig. 2, label 90 and

column 5, lines 45-53); and

memory that includes a sketch program that identifies user input entered via

the user interface and that generates graphical data representative of the user

input (column 6, line 66-column 7, line 1), and a

transmission control manager that is configured to, via the output device,

simultaneously transmit the voice data and information representative of the

generated graphical data via a communication line such that a bandwidth of the

communication line is not exceeded (column 5, lines 34-53).

22. As to claims 2 and 7, Laube discloses generating graphical data comprises

generating graphical data representative of a line entered using a touch-sensitive

display (Fig. 4, and column 6, line 64-column 7, line 1).

23. As to claim 3, Laube discloses transmitting portions of the graphical data to such

that no more than approximately 2 kilobits of graphical data is transmitted per

second (column 5, lines 45-52).

24. As to claim 4, Laube discloses receiving voice data input via a telephone (Fig. 1

and column 1, lines 60-63).

25. As to claims 5, 12, and 31, Laube discloses simultaneously transmitting the voice

data over the communication line along with the portions of graphical data

(column 5, lines 45-53).

26. As to claim 8, Laube discloses identifying data points on a periodic basis in which a data point is identified for every predetermined period during user input (column 6, line 64-column 7, line 1).

27. As to claim 9, Laube discloses identifying discrete data points comprises identifying data points on a line length basis in which a data point is identified for every predetermined length of user input (column 5, lines 1-7, distance between "the coordinates" is the predetermined length).

28. As to claims 10 and 35, Laube discloses buffering the generated graphical data and identifying new discrete data points that are positioned between the previously identified data points and transmitting the new data points over the communication line (column 6, line 64-column 7, line 5, "redundancy reduction" will only send newly identified points).

29. As to claim 11, Laube discloses repeating the steps of claim 10 in an iterative process (column 6, line 64-column 7, line 5, the process is clearly continuous until the phone is hung up, column 7, lines 30-33).

30. As to claim 21 and 33, Laube discloses providing an indication can to the user entering the input that communicates what portion of the input has been

transmitted or is currently visible to a recipient (column 6, lines 64-66, what is displayed for the user displayed for the recipient).

31. As to claim 22, Laube discloses providing an indication comprises showing a portion of the input in at least one of a different color (Fig. 4, and column 6, line 64-column 7, line 1), a different grayscale, and a different line thickness.

32. As to claim 23, Laube discloses comprising removing the indication after passage of a period of time (column 7, lines 30-33, when the phone is hung up, the writing is erased).

33. As to claim 30, Laube discloses the input device comprises a telephone jack (Abstract, lines 1-5).

34. As to claim 32, Laube discloses the output device comprises a modem (column 5, lines 45-52).

35. As to claim 34, it is rejected by the same rationale set forth in claim 1's rejection.

36. As to claim 36, Laube discloses identifying a new reference data point (column 5, lines 1-7), transmitting information that describes the new reference data point via the communication line (column 5, lines 7-10), identifying coordinates of

another data point that identify the location of the other data point relative to the

new reference data point (column 5, lines 1-7, occurs again when the pen is

moved), and transmitting the coordinates via the communication line (column 5,

lines 7-10).

Claim Rejections - 35 USC § 103

37. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as
set forth in section 102 of this title, if the differences between the subject matter sought to be
patented and the prior art are such that the subject matter as a whole would have been
obvious at the time the invention was made to a person having ordinary skill in the art to which
said subject matter pertains. Patentability shall not be negatived by the manner in which the
invention was made.

38. Claims 17-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Laube in view of Lamb (US Pat. No. 6,791,571).

39. As to claim 17, Laube discloses a method for transmitting graphical data via a

communication line (Abstract), comprising:

generating graphical data representative of a user input (column 6, lines 64-

66);

identifying a reference data point (column 6, line 66-column 7, line 1, any

extracted coordinate value reads on "a reference point");

transmitting information that describes the reference data point via the

communication line (column 7, lines 1-10 and column 5, lines 45-47);

identifying coordinates of a further data point that identify the location of the

further data point relative to the reference data point (column 6, line 66-column 7,

line 1); and

transmitting the coordinates to another device via the communication line

(column 7, lines 1-10 and column 5, lines 45-47).

Laube, however, does not disclose that the coordinates are relative, rather

Laube identifies and transmits coordinates and does not go into specifics as to

how they are defined.

Lamb, however, discloses using a relative coordinate system for processing

and displaying graphical information (Abstract).

Therefore it would have been obvious to one of ordinary skill in the art at the

time of the invention to combine the teachings of Laube and Lamb in order to

provide Laube with a specific, known coordinate system to use in his system that

will reliably handle graphical data, rather than the generic implementation with no

specifics that was disclosed.

40. As to claim 18, Laube and Lamb discloses the invention substantially with regard

to the parent claim 17, and further disclose generating graphical data comprises

generating graphical data representative of a line entered using a touch-sensitive

display (Laube, Fig. 4, and column 6, line 64-column 7, line 1).

41. As to claim 19, Laube and Lamb discloses the invention substantially with regard

to the parent claim 17, and further disclose identifying a new reference data point

(Laube, column 5, lines 1-7), transmitting information that describes the new

reference data point via the communication line (Laube, column 5, lines 7-10),

identifying coordinates of another data point that identify the location of the other

data point relative to the new reference data point (Laube, column 5, lines 1-7,

occurs again when the pen is moved), and transmitting the coordinates via the

communication line (Laube, column 5, lines 7-10).

Laube, however, does not disclose that the coordinates are relative, rather Laube

identifies and transmits coordinates and does not go into specifics as to how they

are defined.

Lamb, however, discloses using a relative coordinate system for processing and

displaying graphical information (Abstract).

42. As to claim 20, Laube and Lamb discloses the invention substantially with regard

to the parent claim 17, and further disclose simultaneously transmitting the voice

data over the communication line along with the portions of graphical data

(Laube, column 5, lines 45-53).

43. As to claim 21, Laube and Lamb discloses the invention substantially with regard

to the parent claim 17, and further disclose providing an indication can to the

user entering the input that communicates what portion of the input has been

transmitted or is currently visible to a recipient (Laube, column 6, lines 64-66,

what is displayed for the user displayed for the recipient).

44. As to claim 22, Laube and Lamb discloses the invention substantially with regard

to the parent claim 21, and further disclose providing an indication comprises

showing a portion of the input in at least one of a different color (Laube, Fig. 4,

and column 6, line 64-column 7, line 1), a different grayscale, and a different line

thickness.

45. As to claim 23, Laube and Lamb discloses the invention substantially with regard

to the parent claim 22, and further disclose removing the indication after passage

of a period of time (Laube, column 7, lines 30-33, when the phone is hung up, the

writing is erased).

46. Claim 37 is rejected under 35 U.S.C. 103(a) as being unpatentable over Laube

as applied to claims 24 and 29, in view of Kishimoto et al (US Pat. No.

4,597,101), hereafter "Kishimoto."

47. As to claim 37, Laube discloses the invention substantially with regard to the

parent claim 29, and further discloses receiving via the communication line

discrete data points that represent graphical data (column 6, line 64-column 7,

line 1).

Laube does not disclose means for generating line segments that connect the

discrete data points, and means for displaying the line segments such that a

resultant line is shown that comprises the line segments and that represents a

user input entered into another device.

However, Kishimoto discloses receiving via the communication line discrete

data points that represent graphical data (column 10, lines 8-23), means for

generating line segments that connect the discrete data points (Fig. 4, and

column 7, lines 55-68, and "difference vectors" (column 2, lines 15-25) read on

"line segments"), and means for displaying the line segments such that a

resultant line is shown that comprises the line segments and that represents a

user input entered into another device (Fig. 4 and column 3, lines 59-65).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Laube and Kishimoto in order to more efficiently encode the graphical data thereby decreasing bandwidth requirements (Kishimoto, column 2, lines 3-14).

Conclusion

48. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

49. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

50. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas J. Dailey whose telephone number is
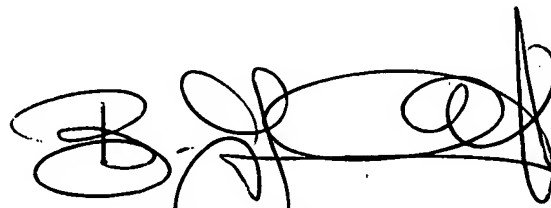
571-270-1246. The examiner can normally be reached on Monday thru Friday;

9:00am - 5:00pm.

51. If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Bunjob Jaroenchonwanit can be reached on 571-272-3913. The fax

phone number for the organization where this application or proceeding is

assigned is 571-273-8300.

52. Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR

only. For more information about the PAIR system, see http://pair-

direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-

free). If you would like assistance from a USPTO Customer Service

Representative or access to the automated information system, call 800-786-

9199 (IN USA OR CANADA) or 571-272-1000.

TJD
6/27/2007

BUNJOB JAROENCHONWANIT
SUPERVISORY PATENT EXAMINER
7/5/7